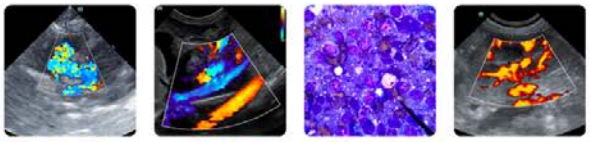




**PATIENT**

Canela Muriel

**SPECIES**

Canine

**BREED**

Mixed

**SEX**

Spayed Female

**AGE**

14 Years

**WEIGHT**

21.2 lbs

**INTERPRETED BY**

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

**IMAGING PERFORMED BY**

Gabriel Ferrer, DVM

**HOSPITAL NAME**

Pulse: Pet Ultrasound

**REFERRING VET**

Dr. Yashira Rosas

**INVOICE**

74307

**DATE**

4/8/26

## PRESENTING CLINICAL SIGNS

Px presented as a referral for an abdominal ultrasound due to hematuria. Px visited rDVM on Monday due to multiple episodes of hematuria that same day. Bloodwork and radiographs were performed by rDVM and some renal and pulmonary abnormalities were noticed. Owner reports Px is PU/PD, has a good appetite, and no vomiting/diarrhea have been observed.

Abnormal PE/Chem/CBC/UA Results: Bloodwork and radiographs attached below for your reference

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears slightly thickened and irregular, particularly in the apical region, measuring at 0.25 cm. The region of the trigone, ureteral papillae and proximal urethra appear free of any mass lesions or calculi.

The left kidney is normal in size (5.95 cm) but irregular in shape. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Towards the caudal pole there is a hypoechoic, poorly defined mass effect likely comprising soft tissue and a fluid filled structure, measuring approximately 2.88 cm x 3.94 cm, most consistent with a partially cystic mass lesion. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (5.77 cm) but slightly irregular in shape. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is a mixed echogenicity, hyperechoic nodule visualized in the cortex of the kidney, measuring 1.76 cm x 1.78 cm. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is “plump” measuring 0.67 cm at the cranial pole and 0.73 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

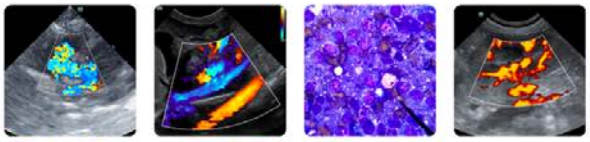
The right adrenal gland is “plump” measuring 0.73 cm at the cranial pole and 0.82 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### *Spleen*

The spleen is subjectively normal in size (1.35 cm), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a hypoechoic nodule visualized towards the cranial aspect of the spleen measuring 0.81 cm x 0.72 cm.

### *Liver*

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a hyperechoic nodule in the liver measuring 1.04 cm.





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The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and likely incidental at this time. The cystic and common bile ducts are normal/not visible.

### *Gastrointestinal*

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.55 cm. Jejunum wall measures 0.37 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### *Pancreas*

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### *Free Abdomen*

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a significant lymphadenopathy with a large, hypoechoic iliac lymph node visualized measuring 3.06 cm x 4.06 cm, possibly partially cystic, and a hypoechoic lymph node/mass effect visualized cranial to the urinary bladder measuring 1.17 cm x 1.62 cm. The omentum is diffusely mildly hyperechoic.

### *Other*

Suspect metastatic lesions visualized on the thoracic radiographs submitted. Recommend radiologist evaluation.

### PRIMARY FINDINGS

- Large, hypoechoic mass effect visualized associated with the left kidney and a mixed echogenicity nodule visualized associated with the right kidney – Findings are concerning for possible neoplastic lesions. Benign lesions are also possible.
- Hypoechoic nodule in the spleen – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Hyperechoic nodule in the liver – This generally has an appearance most consistent with a benign lesion, although a metastatic lesion cannot be ruled out.
- Large, abnormal appearing iliac/sublumbar lymph nodes – Findings are concerning for possible metastatic lymph nodes.

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## SECONDARY FINDINGS

- Mildly thickened/irregular urinary bladder wall – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

- Borderline bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both kidneys have nodules/mass lesions. These are concerning for possible neoplastic lesions such as hemangiosarcoma, round cell neoplasia, carcinoma, etc. A fine needle aspirate could be considered provided blood pressure and coagulation parameters are normal.

Additionally, there is a hypoechoic nodule visualized in the spleen, and a hyperechoic nodule in the liver. Options moving forward would include continued monitoring with ultrasound or a fine needle aspirate.

The bladder wall appears slightly thickened and irregular, possibly consistent with mild cystitis. Correlate with urinalysis and culture. Hematuria could be secondary to cystitis or the renal masses observed.

Additionally, there are large sublumbar lymph nodes. These are concerning for possible metastatic lymph nodes. A fine needle aspirate could be considered to further evaluate.

The thoracic radiographs submitted are highly suspicious for metastatic lesions. Recommend a radiologist consultation to further evaluate.

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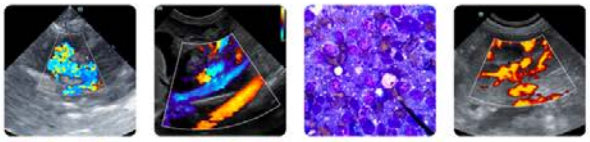

Clinical Sonography & Telecytology
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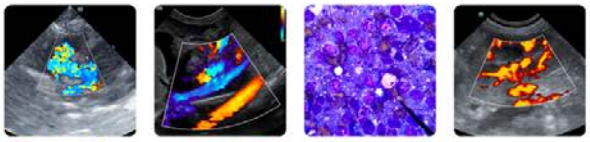



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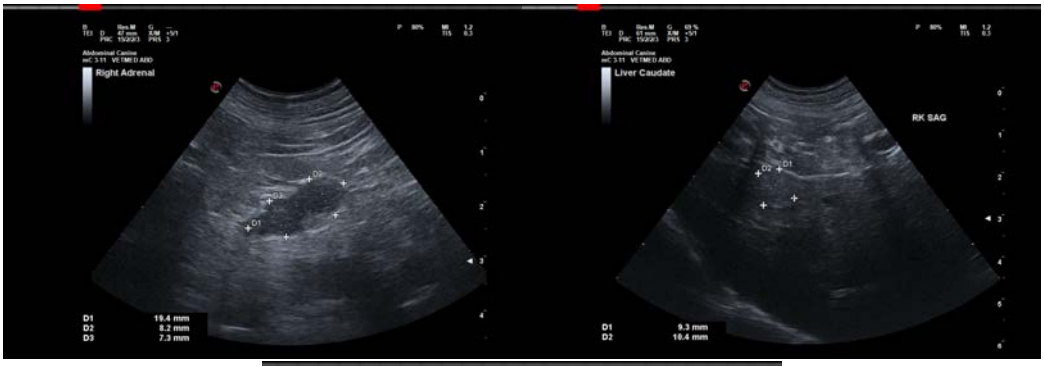



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

info@sonopath.com